

03050107-02

(*North Tyger River*)

General Description

Watershed 03050107-02 (formerly 03050107-020, 030) is located in Spartanburg and Union Counties and consists primarily of the *North Tyger River* and its tributaries. The watershed occupies 56,172 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 43.7% forested land, 31.2% agricultural land, 18.9% urban land, 2.8% forested wetland, 1.4% barren land, 1.3% water, and 0.7% scrub/shrub land.

Jordan Creek, which was impounded to create Lake Cooley, drains into the North Tyger River along with several unnamed tributaries. Frey Creek (Grays Creek) drains into the river next, followed by Jimmies Creek, Cub Branch, Ranson Creek, Tim Creek (Montgomery Pond), and Stillhouse Branch. Further downstream the river flows through Ott Shoals and accepts drainage from Wards Creek (Tanyard Branch), Tin Roof Branch, Johnson Branch (Big Branch), and Thomas Branch. There are a total of 113.5 stream miles and 248.6 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
B-348	W	FW	LAKE COOLEY IN FOREBAY NEAR DAM
B-219	S/INT/BIO	FW	NORTH TYGER RIVER AT US 29, 7.2 MI W OF SPARTANBURG
B-018A	S/INT	FW	NORTH TYGER RIVER AT S-42-231, 11 MI S OF SPARTANBURG

Lake Cooley (B-348) – Aquatic life and recreational uses are fully supported; however, there is a significant decreasing trend in dissolved oxygen concentration. *Fish tissue samples from Lake Cooley indicate no advisories are needed at this time.*

North Tyger River – There are two SCDHEC monitoring stations along the North Tyger River. At the upstream site (*B-219*), aquatic life uses are not supported based on macroinvertebrate community data. There is also a significant decreasing trend in dissolved oxygen concentration. Significant decreasing trends in turbidity and total phosphorus concentration suggest improving conditions for these parameters. There is a significant increasing trend in pH. Recreational uses are fully supported at this site and a significant decreasing trend in fecal coliform bacteria suggests improving conditions for this parameter. At the downstream site (*B-018A*), aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life chronic criterion. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are not supported at this site due to fecal coliform bacteria excursions. *Fish tissue samples from the North Tyger River indicate no advisories are needed at this time.*

NPDES Program

Active NPDES Facilities

RECEIVING STREAM

FACILITY NAME

PERMITTED FLOW @ PIPE (MGD)

NPDES#

TYPE

COMMENT

NORTH TYGER RIVER
LEIGH FIBERS, INC.
PIPE #: 001 FLOW: M/R

SCG250170
MINOR INDUSTRIAL

NORTH TYGER RIVER
SSSD/LOWER N. TYGER RIVER WWTP
PIPE #: 001 FLOW: 2.5 (PHASE II)

SC0048143
MINOR DOMESTIC

NORTH TYGER RIVER
WELLFORD LANDFILL BORROW AREA
PIPE #: 001 FLOW: M/R

SCG730519
MINOR INDUSTRIAL

NORTH TYGER RIVER
MCMILLAN-CARTER/SPARTANBURG #1
PIPE #: 001 FLOW: M/R

SCG730723
MINOR INDUSTRIAL

FREY CREEK
WELLFORD ESTATES TRAILER PARK
PIPE #: 001 FLOW: 0.015

SC0030571
MINOR DOMESTIC

LAKE COOLEY
VULCAN MATERIALS CO./LYMAN QUARRY
PIPE #: 001 FLOW: M/R

SCG730056
MINOR INDUSTRIAL

FREY CREEK TRIBUTARY
FAIRFOREST VENTURE/CEDAR CREST
PIPE #: 001 FLOW: M/R

SCG730371
MINOR INDUSTRIAL

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME

FACILITY TYPE

PERMIT #

STATUS

WELLFORD LANDFILL
DOMESTIC

DWP-078
INACTIVE

WELLFORD LANDFILL
DOMESTIC

421001-1101
ACTIVE

OLD WELLFORD LANDFILL
DOMESTIC

DWP-012
CLOSED

HOWARD GRADING & CONSTR. LCD
C&D LANDFILL

422712-1701
ACTIVE

JIMMY WILSON CONSTR. LCD/HUNSINGER SITE
C&D

422647-1702
ACTIVE

JIMMY WILSON CONSTR. LCD/DKINNER SITE
C&D

422647-1703
ACTIVE

CROFT LANDFILL COMPOSTING	425803-3001, 426600-3001 INACTIVE
WELLFORD LANDFILL COMPOSTING SITE COMPOSTING	421001-3002 ACTIVE
PALMETTO LANDFILL & RECYCLING CENTER COMPOSTING	422401-3001 INACTIVE
WASP NEST ROAD C&D LANDFILL C&D	421001-1202 ACTIVE
MESSER MIRROR LANDFILL INDUSTRIAL	IWP-196 -----
PALMETTO LANDFILL DOMESTIC	422401-1101 ACTIVE
PALMETTO LANDFILL DOMESTIC	DWP-092 ACTIVE
TINDAL CONCRETE SPECIAL WASTE LANDFILL INDUSTRIAL	423340-1601 ACTIVE

Mining Activities

<i>MINING COMPANY</i>	<i>PERMIT #</i>
<i>MINE NAME</i>	<i>MINERAL</i>
VULCAN MATERIAL CO. LYMAN QUARRY	0587-83 GRANITE
LINK LINK SOIL BORROW PIT	1537-83 SAND
FAIRFOREST VENTURE PARTNERS CEDAR CREST	1357-83 SAND; SAND/CLAY

Growth Potential

There is a high potential for industrial, commercial, and residential growth in this watershed, which contains the Town of Duncan and the City of Spartanburg. I-26 and I-85 bisect the watershed and growth is expected around the major highway interchanges, along with industrial developmental pressures along U.S. Hwy. 29 and U.S. Hwy. 221. The Cities of Greer and Spartanburg are connected via the I-85 corridor, and the Town of Duncan is expected to serve as a bedroom community for the Greer-Spartanburg area. The City of Spartanburg is building regional treatment facilities, which should provide for future growth.

Watershed Protection and Restoration Strategies

Total Maximum Daily Loads (TMDLs)

TMDLs were developed for SCDHEC and approved by EPA for fecal coliform bacteria in the **North Tyger River** at water quality monitoring sites **B-219** and **B-018A** and in a tributary at **B-315**. Wellford Estates Trailer Park (SC0030571) discharges into Frey Creek, a tributary of the North Tyger River. Spartanburg Sanitary Sewer District Lower North Tyger River WWTP discharges in the North Tyger 5.5 km upstream of B-018A. The watershed upstream of B-219 is

within two Municipal Separate Storm Sewer System (MS4) designated areas: Town of Lyman and Spartanburg County. Possible sources of fecal coliform bacteria in the North Tyger River upstream of B-219 include MS4 runoff, leaking sewers, failing onsite wastewater disposal systems, pets, and wildlife. For the North Tyger River at B-018A possible sources include failing onsite wastewater disposal systems, cattle in streams, pets, and wildlife. The TMDL specifies reductions in the load of fecal coliform bacteria into the North Tyger River of 52% (B-315), 46% (B-219), and 75% (B-018A) in order for the river to meet the recreational use standard.

Funding for TMDL implementation activities is currently available. For more information, see the Bureau of Water web page at www.scdhec.gov/water or call the Watershed Program at (803) 898-4300.

Special Projects

Tyger River Basin Fecal Coliform TMDL Implementation Project

The Tyger River Basin has been included in the South Carolina's Section 303(d) List for impaired waterbodies for violation of the fecal coliform water quality standard. A TMDL for fecal coliform bacteria was developed for the 25 sampling sites within the watershed. Eleven of these fall within the Municipal Separate Storm Sewer System (MS4) areas. TMDLs for the remaining 15 sites call for reductions ranging from 16% to 82%. The TMDL document indicates that nonpoint sources are the main contributors of fecal coliform bacteria contamination for these sites. Four upstate counties, Soil and Water Conservation Districts, the SJWD Water District, USC Upstate have partnered with Clemson University and several other cooperators to implement the TMDL. Their project addresses several strategies for TMDL implementation through the development and promotion of measures focused at reducing fecal coliform contamination. The goal of the project is to reduce the fecal coliform bacteria load to the Tyger River Basin through agricultural practices, rural residential septic system repairs and urban storm water reductions. This will be done by offering cost share assistance to recruit livestock farmers to develop farm plans and implement BMPs to reduce animal waste from entering the watershed and to recruit homeowners to repair failing septic systems. The project will also educate the public about the potential sources of Fecal Coliform and means of reducing fecal coliform pollution of the watershed.